

IN THE ABSTRACT OF THE DISCLOSURE:

A peritoneal dialyzer [[1]] including: a catheter capable of injecting and discharging peritoneal dialysate in an abdominal cavity of a patient; a peritoneal dialysate circuit [[2]] connected to the catheter; and a dialyzer [[3]] provided in the peritoneal dialysate circuit [[2]], the dialyzer [[3]] including a hemodialysate circuit [[4]] connected so that peritoneal dialysate passing through the inside can come into contact with a hemodialysate via a hollow fiber membrane, characterized in that means [[5]] capable of measuring an osmotic agent concentration in the peritoneal dialysate is provided on the peritoneal dialysate circuit [[2]] on the side of the end at which the catheter is connected with respect to the dialyzer [[3]], and a mechanism [[6]] for dehydrating the peritoneal dialysate according to the osmotic agent concentration measured by the aforementioned means [[5]] is provided on the hemodialysate circuit [[4]], and a method of peritoneal dialysis using the peritoneal dialyzer [[1]]. ~~It becomes possible to reduce time for dialysis treatment and the treatment cost by increasing the dialyzing efficiency and the dehydrating efficiency.~~